FAX COVER SHEET

TOTAL PAGES: __3__

FROM: Ellen McEntee
Morrison Knudsen Corporation
(303)948-4674

TO: __X__ Bonnie Lavelle, USEPA, Region 8
(303) 312-6897

DATE: ___12/2/99___

MESSAGE:

Conf. Call on 12/6/99

- Ellen will revise her letter and send it to me. Revision will more clearly explain rationale for choice of 0.05 ppm as MDL and 0.15 ppm for RQL

- Samples will be analyzed starting 12/7/99

- May choose some samples for Hydride Digestion

PQL - .1

NIST - Nominal Value < .1 ppm
But measured value > 0.1
and would not be ⊥ qualified

MORRISON KNUDSEN CORPORATION

10822 WEST TOLLER DRIVE
LITTLETON, COLORADO U.S.A. 80127
PHONE: (303) 948-4000/FAX: (303) 948-4010

December 2, 1999

Ms. Bonnie Lavelle
USEPA, Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466

RE: Vegetable MDL Study
Vasquez Boulevard/Interstate 70 (VB/I70) Site
Work Assignment 004-RICO-089R

Dear Bonnie,

Enclosed are results of the second MDL study conducted by Columbia Analytical Services (CAS) on NIST SRM 1570 (spinach leaves). This MDL study incorporated the use of a more aggressive digestion along with the 1:2 sample dilution, as described in my e-mail dated 12/1/99. Note that the SRM certified value for arsenic is 0.068 +/- 0.012 ppm and the uncertified value for lead is 0.2 ppm. The arsenic results indicate that reported values between 0.09 ppm (lab calculated PQL) and 0.15 ppm (recommended minimum PQL) should be considered estimated. Therefore, we recommend using 0.05 ppm as the MDL for both arsenic and lead.

Upon receiving your approval to proceed, I will instruct the laboratory to start analysis of the vegetable samples as early as tomorrow, 12/3/99. If you have any questions, please call me at (303) 948-4674.

Sincerely,

Ellen McEntee
Project Chemist

Enc.

cc: Marta Valentine
Kevin Williamson

$150 - $200 FOR HYDRIDE ANALYSIS WOULD HAVE TO BE ADDED TO THE COST OF ANALYSIS FOR LEAD

WOULD HAVE THE FREEZE DRIED SAMPLE AVAILABLE FOR ANOTHER METHOD

Columbia Analytical Services
Method Detection Limit Study

Analytical Method:	200.8
Extr./Dig. Method:	PSEP Tissue
Matrix:	Plant SRM
Units:	mg/Kg
Analyst(s):	Jasper
Instrument:	PQ-T

Sample ID:	MDL-1	MDL-2	MDL-3	MDL-4	MDL-5	MDL-6	MDL-7
Date Analyzed:	11/22/99	11/22/99	11/22/99	11/22/99	11/22/99	11/22/99	11/22/99

Analyte:	Result 1	Result 2	Result 3	Result 4	Result 5	Result 6	Result 7	Mean	Std Dev.	T-Value	Calc. MDL	Reported MDL	% RSD
Arsenic	0.110	0.134	0.123	0.115	0.120	0.129	0.121	0.122	0.008	3.143	0.026	0.03	7%
Lead	0.185	0.198	0.169	0.175	0.189	0.165	0.191	0.182	0.012	3.143	0.038	0.04	7%

Supervisor Approval _____

QA/QC Approval _____